



88064799

aeromet

MONTHLY PROGRESS REPORT NO. 13
for the period March 1-31, 1977
to
ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

1860 Lincoln St., Suite 900
Denver, CO 80203

Contract No. 68-01-1946

Utah U-a/U-b Tract

aeromet inc.

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by

Aeromet, Inc.
Box FF
Norman, OK 73070

Utah U-a/U-b Tract

1.0 INTRODUCTION

Low level temperature and wind data were collected for March, 1977 at Casper, Wyoming; near the Shell Oil Co. Colorado C-b Tract 25 miles west of Rio Blanco, Colorado; Craig, Colorado; Escalante and Hanksville Utah; Rock Springs, Wyoming; and the U-a/U-b Tract 5 miles south of Bonanza, Utah. The data collection was made using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were made $\frac{1}{2}$ hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 500 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft. AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built-in Rustrak strip chart recorder and the temperature was recorded within the range from -50°C to $+50^{\circ}\text{C}$. A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The Monthly Progress Report is divided into seven parts, one corresponding to each of the seven field sites. The collected temperature and wind data are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary Section. However, the obvious errors sometimes found in the recorded azimuth and elevation angles are corrected without mention. For example, the sequence of azimuth angles . . . 76.6, 75.3, 47.8, 73.8 . . . can be corrected without ambiguity. The more ambiguous errors are brought to the attention of the reader if editing has been performed, otherwise, the data are left as recorded and the filtering is left to the individual user. An example is the wind profile for Hanksville on 06/29/76 at 1300 MST found in the Monthly Progress Report No. 4. The azimuth angles starting 30 seconds after the launch and incremented by the same are as follows . . . 109.0, 110.0, 110.0, 281.0, 280.0, 282.0 . . . , while the corresponding elevation angles are as follows, . . . 60.0, 57.6, 58.7, 58.6, 52.7, 44.3 The wind speed and direction change dramatically over the interval as can be seen in the report since these data were not edited.

2.0 DATA SUMMARY

2.1 Utah U-a/U-b Tract Field Summary

No problems were experienced during the month of March. The observer attempted 93% of the scheduled pilot balloon launches resulting in 90% recovery of the temperature data and 73% recovery of the wind data. Snow and strong winds contributed to the 3% loss in temperature data and the 20% loss in wind data.

2.2 Mixing Layer Height

The average mixing layer height was computed for the morning and afternoon based on the morning and 1400L temperature soundings. The balloon release $\frac{1}{2}$ hour after sunrise is near enough to the minimum temperature to assume the correctness of the calculated mixing layer heights. The afternoon balloon release is generally not at the time of maximum heating and the user of the mixing layer height data must be aware that minor changes in the calculated values can be expected. Without equipping the field sites with minimum/maximum thermometers the extrapolation of the afternoon data can not be justified in establishing a data base for statistical analysis. The approximation of the afternoon maximum temperature would be a "calculated guess" for there are: 1) local effects which are to be determined and would be filtered out with extrapolation, 2) mountain effects which alter the lower 1500m (e.g. downslope effects), and 3) meteorological effects which can alter the expected change in the sounding (e.g. advection, moisture, etc.).

It is felt that to better define the mixing layer height that a variety of "heat island" effects should be viewed. The rigorous method would be to define 15 "heat island" effects ranging from 0 to 14°C and let the user decide which would best serve his needs. However, for these analysis 0°, +5° and +10° "heat island" effects are calculated and listed for the morning and afternoon soundings in the table Average Mixing Layer Height.

The symbol N/D means that no mixing layer height was defined and sfc is the abbreviation for surface.

2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.

3.0 DATA PROCESSING

3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthogonal components of the wind. The wind profile is also punched on computer cards at 30 second intervals.

The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and punched on cards. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce for each site a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G.C., 1974: "Climatological Data on Atmospheric Stability in the United States" Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce for each site a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the $\Delta T/100m$ criterion is met but the wind speed criterion is not met, then the

STABILITY CLASS	ΔT ($^{\circ}\text{C}/100\text{m}$)	WIND SPEED
A	<-1.9	<u><2</u>
B	-1.9 - -1.7	<u><5</u>
C	-1.7 - -1.5	<u><6</u>
D	-1.5 - -0.5	ALL SPEEDS
E	-0.5 - 1.5	<u><5</u>
F	>1.5	<u><3</u>

wind data are checked against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example,

if the $\Delta T/100m$ value is 1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a ΔT value of $1.7^{\circ}\text{C}/100\text{ m}$ and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.

3.2 Punched Output

The punched temperature and wind data for each observation are categorized into four groups, each separated by a blank card. The first group begins with a header card listing the station name (3A4), the station elevation in meters (I4), the month, date and year (I6), the observation time (I4), the time zone (A3), the balloon ascent rate in feet per minute (I3), the sampling interval in seconds (I2), the temperature error in °C (F5.1), the T-Sonde I.D. number (I5) and the surface wind speed in kts and direction (2F6.1). A surface wind speed of 180.0 KTS indicates missing surface wind data. The series of cards prior to the first blank card include on each card the elapse time in minutes (2X,F5.1), the height of the balloon in meters AGL (4X,F5.0), the height of the balloon in meters MSL (4X,F5.0), the temperature in °C (4X,F6.2), the change in temperature between standard or significant levels (2X,F6.2), the lapse rate per 300m (2X,F6.2), the difference in the lapse rate per 300m and the dry adiabatic lapse rate per 300m (2X,F6.2), the wind speed in m/s if known (4X,F5.1), and the wind direction if known (3X,F5.0). The cards following the first blank card include on each card the elapse time in minutes (2X,F5.1), the height in meters AGL (4X,F5.0), the height in meters MSL (4X,F5.0), the u-component of the wind in m/s (4X,F6.1), the v-component of the wind in m/s (6X,F6.1), the wind speed in m/s (7X,F5.1), the wind direction (6X,F5.0), the elevation angle in degrees (F5.1) and the azimuth angle in degrees (F5.1). The cards after the second blank card include a header card like before and a series of cards with four groups of the following on each card; the height in meters AGL (F6.1), the temperature in °C (F6.2), the lapse rate °C/300m (F6.2) and a blank space (1X). The cards after the third blank card include a header card the same as described earlier, eight cards with the original digitized temperature data and a flag to indicate interpolated data (20(F3.1,I1)), five cards with the elevation angle in degrees (16F5.1), and five cards with the azimuth angle in degrees (16F5.1). The temperature data are in degrees Celsius and have 50°C added to each value. An elevation angle of 180° indicates a missing azimuth and elevation angle value.

The punched output from the bivariate frequency distribution calculations include a header card as illustrated below,

and the punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

STABILITY CLASS	NUMBER CODE
A	1
B	2
C	3
D	4
E	5
F	6
Independent of Stability	7

The station I.D. numbers are as follows:

STATION	I.D. NUMBER
Casper, Wyoming	1
Colorado C-b Tract	2
Craig, Colorado	3
Escalante, Utah	4
Hanksville, Utah	5
Rock Springs, Wyoming	6
Utah U-a/U-b Tract	7

The month and season number codes are as follows:

MONTH	1-12
SEASON	13 = DJF
	14 = MAM
	15 = JJA
	16 = SON
ANNUAL	17

PILOT BALLOON SUMMARY
Utah U-a/U-b Tract
March, 1977

March 2	MORN	No data received.	
	1350	No wind observations due to snow.	
March 4	0648	No wind observations due to snow.	
	1353	No wind observations due to snow.	
March 6	0650		
	1351	Balloon was lost from sight after 11 minutes.	
March 8	0639		
	1351		
March 10	0636	No wind observations due to snow.	
	1356	No wind observations due to snow. Temperature values were interpolated over the interval from 22 1/2 to 24 1/2 minutes.	
March 12	MORN	No morning observations due to vehicle problems.	
	1350		
March 14	0632	Temperature values were interpolated over the interval from 5 1/2 to 11 1/4 minutes.	
	1350		
March 16	0631	Balloon was lost after 4 minutes. Temperature values were interpolated over the interval from 13 1/4 to 16 minutes.	
	1355	Temperature values were interpolated over the interval from 1 1/4 to 11 3/4 minutes.	

PILOT BALLOON SUMMARY
Utah U-a/U-b Tract
March, 1977

March 18	0628	Temperature values were interpolated over the interval from 9 1/4 to 12 1/4 minutes.
	1350	Balloon was lost in the clouds after 4 1/2 minutes.
March 20	0622	Balloon was lost in the clouds after 8 1/2 minutes.
	1350	Unusually high wind speed values result from large changes in low elevation angles.
March 22	0615	
	1351	Temperature values were interpolated over the interval from 6 3/4 to 12 3/4 minutes.
March 24	0618	Temperature values were interpolated over the interval from 9 3/4 to 12 1/4 minutes.
	1351	Balloon was lost in the clouds after 10 1/2 minutes.
March 26	0613	Temperature values were interpolated over the interval from 2 3/4 to 5 minutes.
	1350	Balloon was lost in the clouds after 11 minutes.
March 28	0607	No wind observations due to snow and blowing dust. Balloon burst after 2 1/4 minutes.
	1350	
March 30	0608	
	1352	Temperature values were interpolated over the interval from 8 3/4 to 12 1/4 minutes.

AVERAGE MIXING LAYER HEIGHT

Utah U-a/U-b Tract

March, 1977

HEIGHT IN METERS

DATE	MORNING			AFTERNOON		
	0°	+5°	+10°	0°	+5°	+10°
2				1150m	1650m	N/D
4	50m	2000m	N/D	100m	1450m	1700m
6	sfc	100m	250m	300m	750m	1900m
8	sfc	75m	150m	200m	1150m	3000m
10	200m	1750m	3150m	sfc	2400m	3000m
12				100m	1000m	1600m
14	sfc	300m	1400m	2050m	3400m	N/D
16	sfc	100m	250m	250m	1750m	2800m
18	2100m	3800m	N/D	100m	3000m	4100m
20	sfc	2950m	N/D	750m	1100m	1650m
22	sfc	100m	300m	1000m	2100m	3700m
24	sfc	2100m	3800m	2900m	3650m	N/D
26	50m	650m	N/D	1500m	1700m	3050m
28	300m			1000m	N/D	N/D
30	sfc	150m	1400m	1300m	3150m	3650m

CLOUD COVER AND SIGNIFICANT WEATHER

Utah U-a/U-b Tract

March, 1977

<u>DATE</u>	<u>MORNING</u>	<u>AFTERNOON</u>
2		broken, snow
4	overcast, snow	overcast, snow
6	clear	clear
8	scattered	broken
10	overcast, heavy snow	overcast, snow
12		broken
14	scattered	broken
16	scattered	scattered
18	broken	broken
20	overcast	broken
22	clear	clear
24	scattered	broken
26	overcast	scattered
28	overcast, snow, blowing dust	overcast
30	scattered	scattered

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4032

DATE 03/02/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLTNV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

412.

451.

0.26

-1.41

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4034

DATE 03/04/77 TIME 06:48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLTNV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

38.

76.

0.76

-0.26

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4036

DATE 03/04/77 TIME 13:53MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLTNV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

457.

495.

0.0

-0.59

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4038

DATE 03/06/77 TIME 06:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLTNV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

343.

2.59

0.0

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4033

DATE 03/06/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLTNV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

317.

660.

0.30

-0.92

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4035

DATE 03/08/77 TIME 06:39MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLTNV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

457.

1.93

0.0

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4037

DATE 03/08/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLTNV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

122.

160.

0.24

-1.57

UTAH UAIIR

FLEV 1585 METERS

SOUNDING ID 4039

DATE 03/10/77 TIME 04:36MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
194.	270.	0.13	-0.96

***** UTAH UAIIB

FLEV 1585 METERS

SOUNDING ID 4286

DATE 03/10/77 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	38.	0.0	0.0

***** UTAH UAUAB

FLEV 1585 METERS

SOUNDING ID 4291

DATE 03/12/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
724.	2000.	0.16	-0.75

***** UTAH UAUAB

FLEV 1585 METERS

SOUNDING ID 4293

DATE 03/14/77 TIME 06:32MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	152.	1.92	0.0

***** UTAH UAUAB

FLEV 1585 METERS

SOUNDING ID 4295

DATE 03/14/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
243.	296.	0.36	-1.33

***** UTAH UAIIB

FLEV 1585 METERS

SOUNDING ID 4285

DATE 03/16/77 TIME 06:31MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	724.	1.45	0.0

***** UTAH UAUAB

FLEV 1585 METERS

SOUNDING ID 4287

DATE 03/16/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 0M OF THE SFC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-1.09
100.	250.	-0.79
250.	500.	-0.74
500.	750.	-0.74
750.	1000.	-0.75
1000.	1500.	-0.63

***** UTAH UAUB FLEV 1585 METERS SOUNDING ID 4294

DATE 03/18/77 TIME 06:28MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1080.	1137.	0.0	-1.03

***** UTAH UAUB FLEV 1585 METERS SOUNDING ID 4284

DATE 03/18/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
76.	152.	0.63	-1.00

***** UTAH UAUB ELEV 1585 METERS SOUNDING ID 4280

DATE 03/20/77 TIME 06:22MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	76.	0.0	0.0

***** UTAH UAUB FLEV 1585 METERS SOUNDING ID 4278

DATE 03/20/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
76.	166.	0.0	-4.20

***** UTAH UAUB ELEV 1585 METERS SOUNDING ID 4289

DATE 03/22/77 TIME 06:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	305.	2.38	0.0

***** UTAH UAUB ELEV 1585 METERS SOUNDING ID 4288

DATE 03/22/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
615.	692.	0.49	-1.27

***** UTAH UAUB FLEV 1585 METERS SOUNDING ID 4281

DATE 03/24/77 TIME 06:18MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	38.	0.0	0.0

***** UTAH UAIIB FLEV 1585 METERS SOUNDING ID 4279

DATE 03/24/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
124.	162.	0.0	-1.54

***** UTAH UAIIB FLEV 1585 METERS SOUNDING ID 4290

DATE 03/26/77 TIME 06:13MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
76.	114.	0.0	-0.37

***** UTAH UAIIB FLEV 1585 METERS SOUNDING ID 4283

DATE 03/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
155.	202.	0.41	-2.16

***** UTAH UAIIB FLEV 1585 METERS SOUNDING ID 4277

DATE 03/28/77 TIME 06:07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE INSUFFICIENT DATA WITHIN 2000M OF THE SFC

***** UTAH UAIIB FLEV 1585 METERS SOUNDING ID 4275

DATE 03/28/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
138.	176.	0.0	-1.79

***** UTAH UAIIB FLEV 1585 METERS SOUNDING ID 4273

DATE 03/30/77 TIME 06:08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	229.	2.02	0.0

***** UTAH UAIIB FLEV 1585 METERS SOUNDING ID 4292

DATE 03/30/77 TIME 13:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
404.	480.	0.37	-1.19

MONTH: MARCH

YEAR: 1977. UTAH UAAB ELEV 1585 METERS

HOLZWORTH'S CLASSIFICATION SCHEME FOR INVERSIONS
MODIFIED TO SHOW TOTAL NUMBER INSTEAD OF PERCENT

THICKNESS (METERS)	SPC	INVERSION BASE HEIGHT (M)		2001- TOTAL
		101- 250	501- 750	
101 - 100	3	0	0	0
101 - 250	2	0	0	0
251 - 500	3	0	0	0
501 - 750	1	0	0	0
751 - 1000	0	0	0	0
1001 - 1500	0	0	0	0
INV TOTAL	9	4	6	0
DT/DZ 5	2	0	0	0
FROM INV BASE	4	0	0	0
TO 3	0	0	0	0
SFC 1	1	0	0	0
NO INV TOT DT/DZ FOR 5	1	1	0	0
SAME 4 LAYERS 3 AS INV 2	0	0	1	0
BASE 1	0	0	0	0

MUNTH: MARCH

YEAR: 1977. UTAH UAUB

SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	11-16 (METER/SEC)	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

^ TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE
500 M UF TEMP AND WIND DATA

MONTH: MARCH

YEAR: 1977. UTAH UAWB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE B STABILITY CLASS IS 0.0
RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE
500 M OF TEMP AND WIND DATA

MONTH: MARCH

YEAR: 1977. UTAH UAWB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WWN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RELATIVE FREQUENCY OF OCCURRENCE OF THE C STABILITY CLASS IS 0.0								
RELATIVE FREQUENCY OF CALM 0.0								

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WND DATA

MONTH: MARCH

YEAR: 1977. UTAH UAWB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.07	0.0	0.0	0.0	0.0	0.0	0.07	0.07
ENE	0.07	0.0	0.0	0.0	0.0	0.0	0.07	0.07
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.07	0.0	0.0	0.0	0.0	0.0	0.07	0.07
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.14	0.0	0.0	0.0	0.0	0.0	0.14	0.14
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg SPEED	2.2	4.2	7.1	10.7	0.0	0.0	0.0	0.0
TOTAL	0.36	0.14	0.29	0.21	0.0	0.0	1.00	1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.64

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: MARCH

YEAR: 1977. UTAH UAWB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	SPEED (METER/SEC)			GREATTER THAN 21 0.0	AVERAGE SPEED 0.0	TOTAL
			7-10	11-16	17-21			
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE E STABILITY CLASS IS 0.23

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 500 M OF TEMP AND WIND DATA
28 SOUNDINGS DID NOT HAVE

MONTH: MARCH

YEAR: 1977. UTAH VALUE

SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SWS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg SPEED	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00
RELATIVE FREQUENCY OF OCCURRENCE OF THE F STABILITY CLASS IS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RELATIVE FREQUENCY OF CALM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: MARCH

YEAR: 1977.

UTAH UAUB

SFC TU 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEE	0.05	0.0	0.0	0.0	0.0	0.0	0.05	0.05
ENE	0.05	0.0	0.0	0.0	0.0	0.0	0.05	0.05
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SESE	0.05	0.0	0.0	0.0	0.0	0.0	0.09	0.09
SSE	0.05	0.0	0.0	0.0	0.0	0.0	0.05	0.05
SSW	0.18	0.0	0.0	0.0	0.0	0.0	0.23	0.23
SWW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WW	0.14	0.0	0.0	0.0	0.0	0.0	0.27	0.27
NWW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NWW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg Speed	1.8	4.2	7.1	10.7	0.0	0.0	0.0	0.0
Total	0.59	0.09	0.18	0.14	0.0	0.0	0.0	1.00

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 680 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE
500 M OF TEMP AND WIND DATA

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4032

DATE 03/02/77 TIME 13150MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DFC C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0-7	SFC		0.83		0.0		2.6	225.
0-8	150	1735	-1.99	-2.82	-4.76	-1.83	M	M
1-3	300	1885	-3.90	-1.91	-3.63	-0.71	M	M
1-8	415	2000	-4.88	-0.97	-2.30	0.63	M	M
2-3	500	2085	-5.16	-0.28	-1.54	1.39	M	M
5-0	915	2500	-9.07	-3.91	-3.10	-0.18	M	M
8-2	1415	3000	-10.86	-1.79	-0.58	2.34	M	M
14-8	2415	4000	-14.94	-4.08	-1.18	1.75		

UTAH VALIB

FLEV 1585 METERS

SOUNDING ID 4032

DATE 03/02/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	1.8	1.8	2.6	225.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4034

DATE 03/04/77 TIME 06:48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0	SFC		-3.99		0.0	0.0		
1.0	150	1735	-3.99	0.0	-1.53	1.40	1.5	135.
2.0	300	1885	-5.15	-1.16	-3.07	-0.14	M	M
2.7	415.	2000.	-6.42	-1.27	-2.70	0.23	M	M
3.2	500	2085	-7.11	-0.69	-2.70	0.23	M	M
5.7	915.	2500.	-10.66	-3.55	-1.36	1.56	M	M
9.0	1415.	3000.	-14.04	-3.38	-1.18	1.75	M	M
15.1	2415.	4000.	-22.19	-8.15	-3.59	-0.67		
20.0	3415.	5000.	-32.11	-9.92	-4.25	-1.33		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4034

DATE 03/04/77 TIME 06:48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.1	1.1	1.5	135.

UTAH UAUB : ELEV 1585 METERS SOUNDING ID 4036
 DATE 03/04/77 TIME 13:53MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		1.79		0.0		2.1	45.
1.0	150	1735	0.84	-0.95	+1.51	1.42	M	M
2.0	300	1885	0.07	-0.77	+1.13	1.79	M	M
2.7	415	2000	-0.60	-0.67	-1.70	1.22	M	M
3.3	500	2085	-0.99	-0.38	+0.38	2.55	M	M
6.0	915	2500	-3.78	-2.80	-4.79	-1.86	M	M
8.0	*1413	2998	-8.89		0.0	2.93		
8.0	1415	3000	-7.93	-4.14	2.90	5.83	M	M
9.8	*1680	3265	-4.97		0.96	3.89		
14.6	2415	4000	-8.59	-0.66	+1.74	1.19		
21.1	3415	5000	-15.74	-7.15	+1.97	0.96		
27.2	4415	6000	-23.92	-8.18	-4.40	-1.47		

UTAH UAUB : ELEV 1585 METERS SOUNDING ID 4036
 DATE 03/04/77 TIME 13:53MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.5	-1.5	2.1	45.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4038

DATE 03/06/77 TIME 06:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.0	SFC		-9.87		0.0		1.5	90
1.0	150	1735	-5.46	4.41	6.32	9.25	1.0	55
2.0	300	1885	-1.10	4.36	3.80	6.73	2.1	174
2.3	* 342	1927	-0.99		0.95	3.88		
2.7	415	2000	-1.18	0.01	0.0	2.93	2.5	190
3.3	500	2085	-1.09	-0.01	0.19	3.12	3.0	203
6.0	915	2500	-3.89	-2.51	-0.96	1.97	4.0	214
9.3	* 1409	2994	-5.55		2.68	5.61		
9.3	1415	3000	-4.58	-1.00	6.31	9.24	7.3	261
11.5	* 1752	3337	-6.90		-0.38	2.55		
15.8	2415	4000	-3.89	0.71	0.0	2.93		
21.6	3415	5000	-11.74	-7.85	-2.92	0.00		
28.0	4415	6000	-15.74	-4.00	0.0	2.93		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4038

DATE 03/06/77 TIME 06:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0	1585	-1.5	-0.0	1.5	90
0.5	76	1661	-1.1	1.4	1.8	142
1.0	152	1737	-0.7	-0.6	0.9	55
1.5	229	1810	-0.4	-0.6	0.7	35
2.0	305	1890	0.1	2.2	2.2	184
2.5	381	1966	0.3	2.3	2.3	187
3.5	457	2042	0.6	2.7	2.7	193
4.5	533	2118	2.5	4.2	4.9	211
5.0	610	2195	3.0	4.3	5.7	222
4.5	686	2271	3.8	4.4	5.5	224
5.0	762	2347	2.7	3.4	4.4	219
5.5	838	2423	2.5	3.6	4.4	215
6.0	914	2490	2.2	3.3	4.0	214
6.5	991	2576	1.8	3.6	4.1	207
7.0	1067	2652	2.3	4.1	4.7	209
7.5	1143	2728	4.2	3.2	5.3	233
8.0	1219	2804	5.0	2.6	5.6	243
8.5	1295	2880	5.3	3.4	5.8	246
9.0	1372	2957	6.4	3.6	6.7	251
9.5	1448	3033	7.8	4.3	7.8	268
10.0	1524	3109	6.6	-1.0	6.7	279
10.5	1600	3185	6.0	-2.1	6.3	290
11.0	1676	3261	6.6	-4.2	7.0	288
11.5	1753	3338	5.8	-4.0	7.0	304
12.0	1829	3414	5.8	-6.0	8.3	316

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4033
 DATE 03/06/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0-9	SFC	1735	6.52		0.0		1.5	315.
1-6	150	1885	4.82	-1.70	-4.64	-1.72	2.7	33.
2-4	300	1885	3.61	-1.21	-0.19	2.74	1.6	51.
2-9	415.	2000.	3.69	0.08	0.93	3.86	0.9	41.
5-6	500	2085	4.16	0.47	1.86	4.79	1.4	117.
8-5	915.	2500.	2.27	-1.51	-4.88	-1.95	5.2	191.
15-0	1415.	3000.	-0.22	-2.88	0.0	2.93	7.9	247.
21-6	2415.	4000.	-4.97	-4.74	-1.34	1.58		
26-9	3415.	5000.	-11.35	-6.39	-1.95	0.98		
	4415.	6000.	-19.36	-8.01	-3.97	-1.05		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4033
 DATE 03/06/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0-0	0.	1585.	1.1	-1.1	1.5	315.
0-5	76.	1661.	-1.2	-1.2	1.7	45.
1-0	177.	1762.	-1.5	-2.7	3.1	29.
1-5	279.	1864.	-1.3	-1.0	1.7	53.
2-0	355.	1940.	-1.0	-0.9	1.4	47.
2-5	431.	2016.	-0.5	-0.6	0.8	40.
3-0	508.	2093.	-1.2	0.9	1.5	126.
3-5	584.	2160.	-2.4	3.5	4.2	145.
4-0	660.	2245.	-2.2	4.4	4.9	154.
4-5	736.	2321.	-1.9	5.7	6.0	161.
5-0	812.	2397.	-0.9	5.1	5.2	170.
5-5	889.	2474.	0.9	4.9	5.0	190.
6-0	981.	2566.	1.3	5.7	5.9	193.
6-5	1101.	2686.	1.0	6.0	6.2	198.
7-0	1187.	2772.	3.1	4.7	5.6	214.
7-5	1263.	2848.	4.1	4.3	5.9	224.
8-0	1339.	2924.	6.1	3.9	7.3	238.
8-5	1415.	3000.	7.3	3.1	7.9	247.
9-0	1492.	3077.	10.0	1.3	10.0	262.
9-5	1568.	3154.	12.0	0.1	12.0	270.
10-0	1644.	3220.	10.6	-0.4	10.6	272.
10-5	1720.	3305.	9.0	0.7	9.0	265.
11-0	1796.	3381.	7.8	3.4	8.5	247.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4035

DATE 03/08/77 TIME 06:39MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0	SFC		-4.77		0.0		1.8	90
1.0	150	1735	3.47	8.24	7.89	10.82	1.4	58
1.8	* 266	1851	3.98		-0.93	1.99		
2.0	300	1885	3.70	0.23	-0.37	2.55		
2.7	415	2000	4.07	-0.00	0.0	2.93	2.9	214
3.3	500	2085	3.69	0.0	-0.93	2.00	3.9	185
6.0	915	2500	1.31	-2.36	-1.88	1.05	15.7	181
9.3	1415	3000	-0.22	-1.55	-0.95	1.98	14.2	211
15.8	2415	4000	-7.70	-7.48	-2.32	0.61	15.7	226
22.0	3415	5000	-15.73	-8.04	-2.96	-0.03		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4035

DATE 03/08/77 TIME 06:39MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.8	-0.0	1.8	90
0.5	76.	1661.	-1.3	1.1	1.7	131
1.0	152.	1737.	-1.2	-0.8	1.4	55
1.5	229.	1814.	1.7	1.1	2.1	237
2.0	305.	1890.	1.6	2.5	2.9	213
2.5	381.	1966.	0.88	3.3	3.4	194
3.0	457.	2042.	-0.55	4.6	4.6	173
3.5	533.	2118.	0.99	6.5	6.6	187
4.0	610.	2195.	1.7	9.4	9.6	190
4.5	686.	2271.	2.0	10.4	10.5	191
5.0	762.	2347.	3.6	11.6	12.1	197
5.5	838.	2423.	5.3	12.0	13.1	204
6.0	914.	2490.	7.3	12.2	14.2	211
6.5	991.	2576.	8.7	12.1	14.9	19
7.0	1067.	2652.	10.0	12.3	15.9	22
7.5	1143.	2728.	10.7	12.0	16.1	22
8.0	1219.	2804.	11.1	12.0	16.3	23
8.5	1295.	2880.	11.2	11.5	16.1	24
9.0	1372.	2957.	11.0	10.4	15.2	27
9.5	1448.	3034.	11.4	11.3	16.0	25
10.0	1524.	3109.	12.6	11.6	17.3	28
10.5	1600.	3185.	12.3	11.3	16.7	27
11.0	1676.	3261.	12.3	10.3	16.0	30
11.5	1753.	3338.	12.8	10.7	16.7	30
12.0	1832.	3417.	12.3	9.9	15.8	31

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4037
 DATE 03/08/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		14.10		0.0		3.6	270.
0.9	150.	1735	12.27	-1.83	-1.26	1.67	4.6	287.
1.9	300.	1885	12.00	-0.27	-2.72	0.21	4.5	306.
2.7	415.	2000.	11.17	-0.84	-0.91	2.02	4.0	290.
3.2	500.	2085	10.72	-0.45	-3.64	-0.71	5.0	286.
5.9	915.	2500.	10.30	-2.41	0.18	3.11	12.5	285.
9.2	1415.	3000.	7.46	-1.31	0.0	2.93	13.4	264.
15.3	2415.	4000.	0.06	-6.93	-2.08	0.85		
20.8	3415.	5000.	-7.21	-7.28	-0.97	1.96		
27.0	4415.	6000.	-11.65	-4.44	-3.13	-0.20		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4037
 DATE 03/08/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMR M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	3.6	0.0	3.6	270.
0.5	76.	1661.	2.9	-0.4	2.9	278.
1.0	160.	1745.	4.6	-1.5	4.8	288.
1.5	236.	1821.	4.4	-2.5	5.1	299.
2.0	312.	1897.	3.5	-2.6	4.4	307.
2.5	389.	1974.	3.2	-1.3	3.5	293.
3.0	465.	2050.	4.9	-1.5	5.0	284.
3.5	541.	2126.	4.6	-1.5	4.9	288.
4.0	625.	2210.	5.4	-1.2	5.9	293.
4.5	702.	2287.	5.6	-1.4	5.8	285.
5.0	778.	2363.	6.8	-1.4	7.0	282.
5.5	854.	2439.	8.6	-1.1	8.9	284.
6.0	930.	2515.	13.0	-1.4	13.4	285.
6.5	1006.	2591.	13.9	-3.1	14.2	282.
7.0	1083.	2668.	13.8	-2.6	14.1	281.
7.5	1159.	2744.	13.0	-1.1	13.9	275.
8.0	1235.	2820.	15.1	-1.0	15.1	270.
8.5	1311.	2896.	14.2	0.5	14.2	268.
9.0	1387.	2972.	13.4	1.1	13.4	265.
9.5	1464.	3049.	13.2	1.8	13.3	262.
10.0	1540.	3125.	12.6	2.2	12.8	260.
10.5	1629.	3210.	13.3	2.7	13.5	260.
11.0	1709.	3294.	11.1	3.5	11.5	256.
11.5	1785.	3370.	10.8	3.5	11.3	252.
12.0	1864.	3449.	11.1	4.0	11.8	250.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4039
 DATE 03/10/77 TIME 06136MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0	SFC		-4.28		0.0		5.7	270.
1.0	150	1735	-5.72	-1.44	-2.50	0.43	M	M
1.9	300	1885	-6.61	-0.89	-1.35	1.58	M	M
2.7	415	2000	-6.63	-0.02	-1.93	1.00	M	M
3.3	500	2085	-8.17	-1.54	-3.10	-0.17	M	M
5.4	915	2500	-11.75	-3.58	-3.32	-0.40	M	M
8.4	1415	3000	-15.33	-3.58	-2.55	0.37	M	M
14.9	2415	4000	-20.06	-4.73	-4.18	-1.25		
20.4	3415	5000	-27.79	-7.72	-4.02	-1.10		
26.0	4415	6000	-36.34	-8.55	-2.04	0.89		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4039
 DATE 03/10/77 TIME 06136MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	5.7	0.0	5.7	270.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4286
 DATE 03/10/77 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-0.13		0.0		8.8	360.
1.0	150	1735	-0.98	-0.86	-1.70	1.22	M	M
2.0	300	1885	-1.96	-0.97	-3.23	-0.30	M	M
2.6	415	2000	-3.43	-1.48	-4.01	-1.09	M	M
2.9	500	2085	-4.84	-1.41	-3.44	-0.51	M	M
5.0	915	2500	-8.09	-3.25	-5.48	-0.55	M	M
8.1	1415	3000	-11.06	-2.98	0.39	3.32	M	M
13.6	2415	4000	-18.75	-7.69	-0.40	2.53		
20.2	3415	5000	-20.98	-2.22	-1.00	1.93		
26.8	4415	6000	-22.70	-1.72	1.60	4.53		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4286
 DATE 03/10/77 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	0.0	-8.8	8.8	360.

UTAH UAIJB

ELEV 1585 METERS

SOUNDING ID 4291

DATE 03/12/77 TIME 13:50HST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME M/TN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		9.32		0.0		3.1	90
1.0	150	1735	8.30	-1.02	-2.57	0.36	1.9	95
2.0	300	1885	7.18	-1.12	-2.03	0.90	2.0	97
2.7	415	2000	5.96	-0.85	-2.22	0.71	2.9	62
3.3	500	2085	5.41	-0.93	-2.04	0.89	3.4	66
6.0	915	2500	4.17	-1.54	-1.49	4.42	4.1	152
9.3	1415	3000	3.12	-0.74	-0.37	2.55	10.7	187
9.5	★1447	3032	3.12		-0.37	2.55		
14.0	*2133	3718	7.55		-1.11	4.03		
15.8	2415	4000	7.00	3.96	-2.03	0.90		
22.4	3415	5000	1.79	-5.29	-2.44	0.49		
28.3	4415	6000	-6.72	-8.51	-3.47	-0.54		

UTAH UAUJB

ELEV 1585 METERS

SOUNDING ID 4291

DATE 03/12/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME M/TN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0	1585	-3.1	-0.0	3.1	90
0.5	76	1661	-2.0	0.5	2.1	104
1.0	152	1737	-1.9	0.1	1.9	94
1.5	229	1814	-1.6	0.3	1.7	102
2.0	305	1890	-2.0	0.2	2.0	97
2.5	381	1966	-2.4	0.6	2.5	76
3.0	457	2042	-2.5	-2.5	3.5	46
3.5	533	2118	-3.3	-0.4	3.3	83
4.0	610	2195	-2.5	-2.5	3.6	45
4.5	686	2271	-0.5	-3.1	3.1	10
5.0	762	2347	-0.1	-1.4	1.4	4
5.5	838	2423	-2.0	-2.0	2.8	134
6.0	914	2499	-1.0	3.6	4.1	152
6.5	991	2576	-1.7	5.7	6.0	164
7.0	1067	2652	-2.1	7.7	8.0	165
7.5	1143	2728	-2.3	9.7	10.0	167
8.0	1219	2804	-2.4	11.0	11.2	168
8.5	1295	2880	-2.0	12.1	12.3	171
9.0	1372	2957	-0.5	11.6	11.6	178
9.5	1448	3033	-2.4	9.8	10.1	194
10.0	1524	3109	-4.7	7.7	9.0	212
10.5	1600	3185	5.0	4.4	6.6	229
11.0	1676	3261	6.7	2.6	7.2	248
11.5	1753	3338	6.6	2.8	7.2	247
12.0	1829	3414	5.4	1.2	5.5	258

UTAH UAIIB

ELEV 1585 METERS

SOUNDING ID 4293

DATE 03/14/77 TIME 06:32MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0	SFC		-6.92		0.0		1.5	135.
1.0	150	1735	-3.99	2.93	0.58	3.50	1.6	171.
1.0	152	1737	-3.99		0.58	3.50		
2.0	300	1885	-4.77	-0.77	-0.19	2.74	2.2	72.
2.7	415.	2000.	-4.67	-0.00	-0.38	2.54	3.5	37.
3.3	500	2085	-5.06	-0.29	-1.34	1.58	2.7	28.
6.0	915.	22500.	-7.80	-2.75	-1.55	1.38	1.5	339.
9.3	1415.	23000.	-10.56	-2.76	-1.56	1.37	3.0	307.
15.8	2415.	4000.	-15.53	-4.97	-3.15	-0.22		
21.8	3415.	5000.	-23.71	-8.18	-2.00	0.93		
28.1	4415.	6000.	-27.59	-3.88	-0.81	2.12		

UTAH UAUAB

ELEV 1585 METERS

SOUNDING ID 4293

DATE 03/14/77 TIME 06:32MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.1	1.1	1.5	135.
0.5	76.	1661.	-0.7	2.9	3.0	167.
1.0	152.	1737.	-0.3	1.6	1.6	171.
1.5	229.	1814.	-0.2	0.3	0.4	151.
2.0	305.	1890.	-2.1	-0.9	2.7	67.
2.5	381.	1966.	-2.1	-3.1	3.8	34.
3.0	457.	2042.	-2.1	-2.4	3.2	40.
3.5	533.	2118.	-0.8	-2.0	2.3	19.
4.0	610.	2195.	-0.5	-1.3	1.1	15.
4.5	686.	2271.	-0.5	-1.3	1.4	22.
5.0	763.	2348.	0.1	-1.5	1.5	356.
5.5	839.	2424.	0.1	-1.3	1.3	354.
6.0	915.	2500.	0.6	-1.4	1.5	339.
6.5	992.	2577.	1.5	-0.8	1.7	299.
7.0	1068.	2653.	1.6	-1.1	1.9	306.
7.5	1144.	2729.	1.9	-0.8	2.1	293.
8.0	1220.	2805.	0.1	-0.7	0.7	350.
8.5	1296.	2881.	1.0	-0.9	1.3	311.
9.0	1373.	2958.	2.1	-2.0	2.9	314.
9.5	1449.	3034.	2.7	-1.6	3.1	301.
10.0	1525.	3110.	3.2	-1.9	3.8	301.
10.5	1601.	3186.	4.1	-2.0	4.6	296.
11.0	1677.	3262.	4.3	-1.6	4.6	291.
11.5	1754.	3339.	4.1	-1.2	4.3	287.
12.0	1830.	3415.	4.2	-1.2	4.4	286.

UTAH UAUUB

ELEV 1585 METERS

SOUNDING ID 4295

DATE 03/14/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME M/TN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		3.69		0.0			
0-8	150	1735	1.65	-2.04	-3.95	-1.02	6.2	270
1-5	300	1885	0.13	-1.52	-3.02	-0.10	4.5	269
2-2	415	2000	-0.90	-0.83	-3.60	-0.68	4.6	267
2-7	500	2085	-1.66	-0.96	-4.56	-1.64	3.8	264
4-3	915	2500	-6.04	-4.37	-4.04	-1.11	3.9	268
6-7	1415	3000	-12.15	-4.81	-4.48	-1.56	5.3	263
12-5	2415	4000	-17.95	-7.11	-1.98	0.95		
18-7	3415	5000	-24.63	-6.68	-1.80	1.12		
23-7	4415	6000	-33.24	-8.61	-1.42	1.51		

UTAH UAUUB

ELEV 1585 METERS

SOUNDING ID 4295

DATE 03/14/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME M/TN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0-0	0	1585	6.2	0.0	6.2	270
0-5	76	1661	3.3	0.1	3.3	268
1-0	193	1778	5.2	0.1	5.2	269
1-5	296	1881	4.6	0.2	4.7	267
2-0	377	1962	3.8	0.6	3.8	261
2-5	459	2044	3.8	0.2	3.8	267
3-0	550	2135	4.0	0.2	4.0	268
3-5	676	2261	5.3	0.1	5.3	268
4-0	831	2416	6.0	0.4	6.0	266
4-5	953	2538	4.0	0.7	5.0	262
5-0	1049	2634	4.6	-0.5	4.7	276
5-5	1157	2742	5.8	-0.1	5.8	271
6-0	1272	2857	5.0	-0.7	5.0	278
6-5	1373	2958	3.8	-0.4	3.8	276
7-0	1499	3084	5.0	0.1	5.1	269
7-5	1601	3186	5.9	-0.0	5.9	270
8-0	1681	3266	5.2	-0.3	5.2	274
8-5	1786	3371	4.2	-0.4	4.2	275
9-0	1869	3454	3.1	-0.4	3.2	278
9-5	1945	3530	4.4	-0.3	4.4	274
10-0	2021	3606	4.8	-0.2	4.8	272
10-5	2100	3685	6.5	2.4	6.9	250
11-0	2176	3761	7.8	4.0	8.4	241
11-5	2267	3852	8.9	4.3	9.9	244
12-0	2343	3928	10.5	5.6	11.9	242

UTAH UALB

ELEV 1585 METERS

SOUNDING ID 4285

DATE 03/16/77 TIME 06:31MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD.	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-8.98		0.0		2.1	135.
1.0	150	1735	-3.12	5.86	6.12	9.05	1.1	132.
2.0	300	1885	-1.47	1.65	3.79	6.72	1.2	223.
2.7	415.	2000.	0.07	1.35	1.51	4.44	1.4	123.
3.3	500	2085	0.44	0.57	1.51	4.44	1.4	188.
4.8	* 723	2308	-1.50		-0.19	2.74		
6.0	915.	2500.	0.74	0.30	-0.94	1.98	M	M
9.3	1415.	3000.	-0.88	-1.62	-1.33	1.60	M	M
15.8	2415.	4000.	-7.01	-6.13	-2.51	0.42		
22.0	3415.	5000.	-13.54	-6.53	-1.18	1.75		

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4285

DATE 03/16/77 TIME 04:31MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	H-FLIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.5	1.5	2.1	135.
0.5	76.	1661.	-1.3	2.0	2.4	147.
1.0	152.	1737.	-1.0	0.7	1.1	132.
1.5	229.	1814.	0.2	0.9	0.9	195.
2.0	305.	1890.	0.9	0.9	1.3	225.
2.5	381.	1966.	-0.9	0.3	1.0	110.
3.0	457.	2042.	-1.3	1.4	1.9	139.
3.5	533.	2118.	0.8	0.8	1.1	226.
4.0	610.	2195.	0.7	3.9	3.9	190.

UTAH UAIJB

ELEV 1585 METERS

SOUNDING ID 4287

DATE 03/16/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		10.62		0.0		4.6	270
1.0	150	1735	10.05	-1.57	-2.38	0.55	1.3	295
2.0	300	1885	7.93	-1.12	-2.21	0.72	3.0	293
2.7	415	2000	7.09	-0.84	-2.21	0.71	4.4	294
3.3	500	2085	6.26	-0.83	-2.22	0.71	4.3	289
6.0	915	2500	3.81	-2.85	-2.24	0.69	5.8	194
9.3	1415	2300	-0.12	-3.53	-1.51	1.42	12.7	184
15.8	2415	4000	-5.35	-5.23	-0.77	2.16		
22.4	3415	5000	-7.90	-2.55	-2.71	0.22		
28.6	4415	6000	-14.63	-6.73	-5.11	-2.18		

UTAH UAIJB

ELEV 1585 METERS

SOUNDING ID 4287

DATE 03/16/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0	1585	4.6	0.0	4.6	270
0.5	76	1661	2.0	-0.1	2.0	272
1.0	154	1739	1.2	-0.6	1.3	296
1.5	230	1815	1.2	-0.4	1.0	282
2.0	306	1891	1.2	-1.3	3.1	294
2.5	382	1967	1.2	-1.7	4.2	294
3.0	458	2041	1.2	-1.9	4.6	294
3.5	535	2120	1.2	-1.0	4.1	285
4.0	611	2196	1.2	0.0	1.8	270
4.5	687	2272	1.2	2.1	2.2	202
5.0	763	2348	1.2	4.4	4.4	183
5.5	839	2424	1.2	5.5	5.5	186
6.0	916	2501	1.2	5.6	5.8	194
6.5	992	2577	1.2	7.4	7.7	196
7.0	1068	2653	1.2	9.4	9.7	195
7.5	1144	2729	1.2	11.2	11.4	192
8.0	1220	2805	1.2	12.0	12.2	190
8.5	1297	2882	1.2	13.4	13.5	185
9.0	1373	2958	1.1	13.2	13.3	185
9.5	1449	3034	0.7	12.3	12.3	184
10.0	1525	3110	0.8	12.0	12.0	183
10.5	1601	3186	1.4	12.8	12.5	185
11.0	1678	3263	0.6	12.5	12.5	183
11.5	1754	3330	1.3	12.7	12.7	186
12.0	1830	3415	2.0	13.6	13.7	188

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4294

DATE 03/18/77 TIME 06:28MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.0	SFC		-1.86		0.0		7.7	225.
0.5	150	1735	-3.45	-1.59	-4.78	-1.85	5.9	244.
1.0	300	1885	-5.15	-1.70	-5.95	-3.02	6.8	231.
1.5	415.	2000.	-6.53	-1.33	-5.30	-2.47	9.9	240.
2.0	500	2085	-7.28	-0.80	-4.45	-1.52	12.0	244.
2.5	915.	2500.	-11.36	-3.68	-4.10	-1.17	11.5	248.
3.0	1415.	3000.	-15.74	-4.78	-2.76	0.17	9.6	248.
3.5	2415.	4000.	-25.54	-9.80	-3.61	-0.68		
4.0	3415.	5000.	-31.90	-6.36	-0.20	2.73		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4294

DATE 03/18/77 TIME 06:28MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	5.5	5.5	7.7	225.
0.5	76.	1661.	5.8	2.0	6.2	251.
1.0	171.	1756.	5.1	2.7	5.8	242.
1.5	304.	1889.	5.3	4.3	6.9	231.
2.0	453.	2038.	9.8	4.9	10.9	244.
2.5	581.	2166.	12.5	5.7	13.8	245.
3.0	684.	2260.	11.0	4.3	11.8	249.
3.5	790.	2375.	12.1	5.2	13.2	247.
4.0	886.	2471.	10.4	4.2	11.2	248.
4.5	979.	2564.	11.3	4.5	12.2	248.
5.0	1080.	2665.	11.6	4.5	12.4	249.
5.5	1176.	2761.	11.0	4.2	11.8	249.
6.0	1252.	2837.	9.0	3.5	9.7	249.
6.5	1330.	2915.	8.0	3.2	8.6	248.
7.0	1417.	3002.	9.0	3.6	9.7	248.
7.5	1495.	3080.	8.1	3.5	8.8	247.
8.0	1579.	3164.	8.1	2.6	8.5	252.
8.5	1657.	3242.	8.4	3.2	9.0	249.
9.0	1743.	3328.	9.2	3.6	9.9	249.
9.5	1826.	3414.	11.1	4.7	12.0	247.
10.0	1907.	3499.	12.5	4.9	13.5	249.
10.5	1988.	3573.	13.5	4.4	14.2	252.
11.0	2064.	3649.	15.2	4.5	15.9	254.
11.5	2140.	3725.	14.7	4.1	15.3	255.
12.0	2216.	3801.	15.3	4.6	16.0	253.

UTAH UAUB

ELEV 1585 METERS

SUUNNING ID 4284

ATE 03/18/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STU	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		5.49		0.0		10.8	270.
1.0	150	1735	5.20	-0.24	0.0	2.93	15.0	270.
2.0	300	1885	4.45	-0.75	-1.86	1.07	11.7	271.
2.7	415.	2000.	2.65	-1.22	-6.00	-3.07	6.4	289.
3.1	500	2085	1.87	-1.50	-5.46	-2.53	6.5	290.
4.5	915.	2500.	-3.26	-5.15	-8.41	-5.46	M	M
5.7	1415.	3000.	-7.76	-4.50	-9.65	-6.73	M	M
8.0	2415.	4000.	-17.74	-9.99	-4.94	-2.01	M	M
14.3	3415.	5000.	-19.86	-2.12	-1.19	1.74		
19.8	4415.	6000.	-27.78	-7.92	-0.44	-3.51		

UTAH UAUB

ELEV 1585 METERS

SUUNNING ID 4284

ATE 03/18/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	10.8	0.0	10.8	270.
0.5	76.	1661.	13.3	0.2	13.3	264.
1.0	152.	1737.	14.8	-2.2	15.0	274.
1.5	229.	1814.	12.8	-1.6	12.9	277.
2.0	305.	1890.	11.6	-1.4	11.7	277.
2.5	381.	1966.	0.3	-2.0	0.0	287.
3.0	476.	2051.	5.6	-2.2	6.0	291.
3.5	626.	2211.	9.0	-1.8	9.2	281.
4.0	755.	2340.	0.3	1.2	0.4	259.
4.5	907.	2492.	7.1	1.1	7.2	261.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4280

DATE 03/20/77 TIME 06:22MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		1.79		0.0			
1.0	150	1735	1.50	-0.29	-1.13	1.80	7.2	270
2.0	300	1885	0.74	-0.76	-1.89	1.04	9.1	295
2.7	415	2000	-0.13	-0.87	-1.32	1.60	8.1	304
3.3	500	2085	-0.40	-0.27	-1.89	1.03	7.5	305
5.9	915	2500	-4.28	-3.88	-3.83	-0.90	7.8	304
8.8	1415	3000	-9.07	-4.79	-6.01	-3.08	7.5	292
14.4	2415	4000	-17.64	-8.57	-3.56	-0.63	M	M
20.4	3415	5000	-24.83	-7.19	-2.20	0.72		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4280

DATE 03/20/77 TIME 06:22MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0	1585	7.2	0.0	7.2	270
0.5	76	1661	6.3	-1.1	6.4	280
1.0	152	1737	8.3	-3.0	9.1	295
1.5	229	1814	8.5	-4.4	9.5	297
2.0	305	1890	6.6	-4.5	8.0	305
2.5	381	1966	6.2	-4.4	7.6	305
3.0	457	2042	6.2	-4.3	7.5	305
3.5	533	2118	6.6	-4.4	8.0	304
4.0	610	2195	6.1	-4.6	7.6	307
4.5	686	2271	6.9	-5.6	8.9	309
5.0	768	2353	8.5	-5.5	10.1	303
5.5	852	2437	6.9	-2.7	7.4	292
6.0	939	2524	6.9	-2.9	7.5	293
6.5	1029	2614	7.7	-4.0	8.7	298
7.0	1106	2691	8.1	-4.4	9.2	299
7.5	1182	2767	8.4	-4.3	9.4	297
8.0	1258	2843	9.3	-4.7	10.5	297
8.5	1340	2925	9.6	-4.5	10.6	295

UTAH UAUB

ELEV 1585 METERS

SUOUNDING ID 4278

DATE 03/20/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	U/T STO	D/T SUUM	D/T LAPSE	WS M/S	WD DEG
	SFC		7.46		0.0		5.1	315.
0.8	150	1735	4.26	-3.20	-2.24	0.69	5.9	319.
1.6	300	1885	3.47	-0.74	-0.94	1.99	6.6	320.
2.3	415.	2000.	2.65	-0.81	-3.00	-0.07	6.3	311.
2.8	500	2085	1.52	-1.14	-3.38	-0.45	0.0	317.
5.5	915.	2500.	0.83	-0.09	1.13	4.06	13.4	286.
8.8	1415.	3000.	1.41	0.51	-0.75	2.17	20.3	300.
15.1	2415.	4000.	-2.92	-4.35	-1.91	1.02		
21.5	3415.	5000.	-8.59	-5.00	-5.10	-0.17		
27.7	4415.	6000.	-11.16	-2.57	-5.46	-2.53		

UTAH UAUB

ELEV 1585 METERS

SUOUNDING ID 4278

DATE 03/20/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	5.0	-5.0	5.1	315.
0.5	76.	1601.	2.4	-2.5	5.4	310.
1.0	215.	1800.	5.0	-6.3	8.1	321.
1.5	291.	1876.	4.0	-5.3	6.6	325.
2.0	568.	1953.	5.2	-5.2	6.1	301.
2.5	449.	2034.	4.4	-4.7	6.4	317.
3.0	530.	2115.	4.5	-4.8	6.6	317.
3.5	611.	2196.	6.9	-2.7	7.4	291.
4.0	687.	2272.	8.5	-0.4	8.5	272.
4.5	763.	2348.	9.3	1.7	9.0	260.
5.0	839.	2424.	9.3	-0.6	9.4	274.
5.5	915.	2500.	12.9	-5.7	13.4	286.
6.0	992.	2577.	19.6	-7.6	21.1	291.
6.5	1068.	2653.	25.6	-8.7	27.0	284.
7.0	1144.	2729.	33.7	-10.3	35.2	287.
7.5	1220.	2805.	40.9	-12.9	42.9	288.
8.0	1296.	2881.	24.0	-8.6	25.5	290.
8.5	1373.	2958.	16.8	-9.3	21.0	296.
9.0	1449.	3034.	16.5	-10.9	19.8	303.
9.5	1525.	3110.	15.0	-8.7	17.3	300.
10.0	1601.	3186.	16.2	-6.7	17.5	292.
10.5	1677.	3262.	16.7	-1.6	18.7	275.
11.0	1754.	3339.	11.1	-2.4	11.4	282.
11.5	1830.	3415.	7.2	-2.1	7.5	287.
12.0	1900.	3491.	9.5	-5.0	10.8	298.

UTAH UAUB

FLFV 1585 METERS

SOUNDING ID 4289

DATE 03/22/77 TIME 06:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.0	SFC		-5.45		0.0		2.1	135.
1.0	150	1735	-0.14	5.31	6.99	9.92	3.5	159.
1.5	* 228	1813	1.79		3.77	6.70		
2.0	300	1885	1.79	1.93	-0.19	2.74	3.6	194.
2.7	415.	2000.	1.31	-0.10	-1.32	1.61	3.6	215.
3.3	500	2085	1.02	-0.68	-0.94	1.99	3.0	218.
6.0	915.	2500.	-1.86	-2.11	-2.85	0.08	3.5	248.
9.3	1415.	3000.	-1.86	-0.77	-0.57	2.36	7.0	261.
15.6	2415.	4000.	-10.26	-8.40	-8.33	0.59		
22.1	3415.	5000.	-17.54	-7.28	-7.57	0.36		
28.3	4415.	6000.	-26.05	-8.51	-2.41	0.52		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4289

DATE 03/22/77 TIME 06:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.5	1.5	2.1	135.
0.5	76.	1661.	-1.0	0.4	1.1	113.
1.0	152.	1737.	-1.2	3.4	3.6	160.
1.5	229.	1814.	-0.3	3.9	3.9	176.
2.0	305.	1890.	0.9	3.4	3.6	195.
2.5	381.	1966.	2.4	3.3	4.0	216.
3.0	457.	2042.	1.7	2.5	3.1	2214.
3.5	533.	2118.	1.9	2.2	2.9	2221.
4.0	610.	2195.	2.6	2.0	3.3	2233.
4.5	686.	2271.	3.0	1.5	3.3	2244.
5.0	762.	2347.	2.8	1.5	3.2	2243.
5.5	838.	2423.	2.9	1.3	3.1	2246.
6.0	914.	2499.	3.3	1.4	3.5	2247.
6.5	991.	2576.	4.7	0.9	4.8	259.
7.0	1070.	2655.	5.7	0.9	5.8	261.
7.5	1146.	2731.	6.0	1.5	6.2	256.
8.0	1222.	2807.	6.6	2.7	7.1	248.
8.5	1298.	2883.	7.8	2.7	8.2	251.
9.0	1375.	2960.	6.9	1.5	7.1	258.
9.5	1451.	3036.	6.9	0.8	6.9	264.
10.0	1527.	3112.	6.6	0.5	6.6	266.
10.5	1603.	3188.	6.3	0.0	6.3	270.
11.0	1686.	3271.	6.5	-1.0	6.6	279.
11.5	1762.	3347.	7.1	-1.4	7.3	282.
12.0	1838.	3423.	7.9	-1.0	7.9	277.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4288

DATE 03/22/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.7	SFC		15.01	-3.37	0.0	-3.62	1.0	270
0.7	150	1735	11.64	-6.55	1.8	-4.03	2.3	297
1.1	300	1885	10.15	-1.49	6.95	-4.02	2.3	309
1.5	415	2000	8.77	-1.38	6.95	-4.02	2.3	303
1.8	500	2085	8.40	-0.37	2.57	0.36	2.3	279
2.2	915	2500	5.87	-2.16	0.37	2.56	1.8	162
2.5	1415	23000	3.50	-2.74	2.24	0.69	1.9	198
14.0	2415	4000	-2.05	-5.56	-2.09	0.83		
20.5	3415	5000	-8.49	-6.44	-2.33	0.60		
26.8	4415	6000	-15.44	-6.95	-0.79	2.14		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4288

DATE 03/22/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	1.0	0.0	1.0	270
0.5	76.	1661.	1.3	0.4	1.4	286
1.0	255.	1840.	1.7	-1.5	2.3	311
1.5	417.	2002.	1.9	-1.2	2.3	303
2.0	577.	2162.	2.3	0.6	2.4	256
2.5	653.	2238.	2.3	1.3	2.2	193
3.0	730.	2315.	0.4	1.3	1.4	196
3.5	806.	2391.	-0.0	0.0	0.0	180
4.0	882.	2467.	-0.3	1.4	1.4	168
4.5	958.	2543.	-1.0	2.4	2.4	153
5.0	1034.	2619.	-0.8	2.8	2.8	162
5.5	1111.	2696.	-1.0	2.2	2.2	160
6.0	1187.	2772.	-1.8	2.9	2.9	155
6.5	1263.	2848.	-1.2	3.8	3.8	159
7.0	1339.	2924.	-0.5	2.2	2.2	171
7.5	1415.	3000.	0.6	1.8	1.8	198
8.0	1492.	3077.	1.8	1.0	1.0	273
8.5	1568.	3153.	1.6	2.0	2.0	219
9.0	1644.	3220.	1.7	1.4	1.4	221
9.5	1720.	3305.	1.7	0.9	0.9	243
10.0	1796.	3381.	2.0	0.0	0.0	244
10.5	1873.	3458.	3.0	1.1	1.1	251
11.0	1949.	3534.	3.0	1.5	1.5	252
11.5	2025.	3610.	4.0	1.4	1.4	249
12.0	2101.	3686.	4.3			253

UTAH UAUB

ELEV 1585 METERS

SUOUNDING ID 4281

DATE 03/24/77 TIME 06:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		8.07		0.0		7.7	180
1.0	150	1735	8.03	-0.05	-1.65	1.27	8.4	189
2.0	300	1885	7.27	-0.75	-1.66	1.27	13.5	199
2.7	415	2000	5.98	-1.31	-3.15	-0.22	14.0	204
3.3	500	2065	5.14	-0.82	-2.60	0.33	13.3	206
5.7	915	2500	1.02	-4.09	-4.52	-1.59	14.3	212
8.7	1415	3000	-3.02	-4.04	-3.05	-0.12	19.1	220
15.1	2415	4000	-9.58	-6.58	-2.13	0.79		
21.0	3415	5000	-16.04	-6.46	-4.54	-1.41		

UTAH UAUB

ELEV 1585 METERS

SUOUNDING ID 4281

DATE 03/24/77 TIME 06:18MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0	1585	-0.0	7.7	7.7	180
0.5	76	1661	1.3	5.4	5.0	193
1.0	152	1737	1.2	8.4	8.5	188
1.5	229	1814	2.0	11.0	12.0	195
2.0	305	1890	4.4	12.8	13.6	199
2.5	381	1966	5.5	15.6	14.7	202
3.0	457	2042	5.7	11.8	15.1	200
3.5	535	2120	0.1	12.1	15.5	201
4.0	611	2196	5.8	10.9	12.3	208
4.5	690	2275	6.1	11.3	12.9	208
5.0	794	2379	7.9	15.1	17.1	208
5.5	875	2400	7.2	11.7	15.8	212
6.0	961	2546	8.0	12.5	14.8	213
6.5	1062	2647	9.8	14.4	17.4	214
7.0	1138	2723	9.3	10.6	14.1	221
7.5	1214	2790	9.5	10.7	14.3	222
8.0	1290	2875	11.0	12.2	16.5	222
8.5	1360	2951	11.1	12.8	16.9	221
9.0	1460	3051	13.4	16.6	21.3	219
9.5	1542	3127	11.9	13.8	18.3	221
10.0	1618	3203	12.0	14.1	18.9	222
10.5	1695	3280	11.3	12.2	16.6	223
11.0	1771	3356	12.2	11.9	17.1	220
11.5	1847	3432	12.2	12.3	17.3	225
12.0	1923	3508	12.2	12.7	17.6	224

UTAH UAIJB

ELEV 1585 METERS

SOUNDING ID 4279

DATE 03/24/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		14.83		0.0		10.3	135.
0.9	150	1735	12.92	-1.91	-0.90	2.03	9.9	167.
1.9	300	1885	13.01	-0.91	-3.07	-0.15	10.1	166.
2.6	415.	2000.	9.97	-0.83	-3.46	-0.53	11.2	166.
3.1	500	2085	10.24	-0.94	-3.48	-0.55	12.6	170.
4.8	915.	2500.	5.11	-5.07	-5.38	-2.45	11.4	186.
6.4	1415.	3000.	0.55	-4.61	-4.71	-1.78	11.2	195.
9.6	2415.	4000.	-10.56	-10.21	-6.81	-3.80	12.0	195.
11.0	*2861	4446	-13.84		-1.96	0.97		
13.0	*3165	4750	-11.85		-0.98	1.95		
14.0	3415.	5000.	-14.84	-5.18	-5.70	-2.77		
20.3	4415.	6000.	-18.15	-3.31	0.79	3.72		

UTAH UAU8

ELEV 1585 METERS

SOUNDING ID 4279

DATE 03/24/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-7.3	7.3	10.3	135.
0.5	76.	1661.	-1.0	4.8	4.9	168.
1.0	162.	1747.	-2.5	10.4	10.7	167.
1.5	238.	1823.	-2.8	11.0	11.4	166.
2.0	315.	1900.	-2.4	9.5	9.8	166.
2.5	392.	1977.	-2.7	10.2	10.6	165.
3.0	480.	2065.	-2.6	12.5	12.8	168.
3.5	589.	2174.	-0.6	11.8	11.8	177.
4.0	696.	2281.	-0.4	9.8	9.8	178.
4.5	834.	2419.	0.2	11.4	11.4	181.
5.0	996.	2581.	2.0	11.1	11.3	190.
5.5	1145.	2730.	2.4	11.0	11.2	193.
6.0	1290.	2875.	3.7	9.7	10.4	201.
6.5	1435.	3020.	2.7	11.0	11.3	194.
7.0	1562.	3147.	3.9	9.6	10.3	202.
7.5	1692.	3277.	3.0	10.3	10.7	196.
8.0	1854.	3439.	2.9	12.9	13.2	193.
8.5	2026.	3611.	2.4	13.5	13.7	190.
9.0	2202.	3787.	2.2	11.5	11.7	191.
9.5	2379.	3964.	3.1	11.0	11.4	196.
10.0	2556.	4141.	3.6	13.8	14.3	195.
10.5	2727.	4312.	5.5	12.9	14.0	203.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4290

DATE 03/26/77 TIME 06:13MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		1.02		0.0		2.6	315.
1.0	150	1735	0.27	-0.76	-1.13	1.80	1.4	318.
2.0	300	1885	0.25	-0.01	-0.57	2.36	1.0	63.
2.7	415.	2000.	-0.22	-0.47	-0.38	2.55	0.6	166.
3.3	?	2085	-0.32	-0.10	-0.57	2.36	0.7	258.
6.0	915.	2500.	-1.96	-1.33	-3.42	-0.49	5.2	21.
8.9	1415.	3000.	-6.23	-4.59	-1.54	1.39	4.4	35.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4290

DATE 03/26/77 TIME 06:13MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEE M/S	WND DIR DEG
0.0	0.	1585.	1.8	-1.8	2.6	315.
0.5	76.	1661.	1.6	-0.5	1.7	287.
1.0	152.	1737.	0.9	-1.2	1.4	319.
1.5	229.	1814.	0.2	-1.2	1.2	352.
2.0	305.	1890.	-0.7	-0.7	1.0	44.
2.5	381.	1966.	-0.3	-0.3	0.4	51.
3.0	457.	2042.	0.6	-0.5	0.8	309.
3.5	533.	2118.	1.5	1.9	2.4	218.
4.0	610.	2195.	-0.3	2.1	2.2	171.
4.5	686.	2271.	-0.9	1.1	1.4	140.
5.0	762.	2347.	-3.0	1.2	3.2	111.
5.5	838.	2423.	-2.1	-0.8	7.1	17.
6.0	914.	2499.	-1.8	-4.9	5.2	21.
6.5	991.	2576.	-1.0	-4.5	4.6	13.
7.0	1073.	2653.	-0.8	-4.2	4.3	11.
7.5	1167.	2752.	-0.7	-4.4	4.4	10.
8.0	1264.	2840.	-0.9	-4.4	4.4	11.
8.5	1357.	2942.	-2.1	-4.8	5.2	24.
9.0	1433.	3018.	-2.6	-3.3	4.2	38.
9.5	1509.	3094.	-2.3	-2.0	3.1	49.
10.0	1596.	3181.	-2.0	-1.7	2.6	50.
10.5	1673.	3258.	-1.5	-0.8	1.7	63.
11.0	1749.	3334.	-1.3	0.5	1.4	110.

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4283

DATE 03/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.8	SFC		10.81		0.0		2.1	135.
1.5	150	1735	7.46	-3.34	-2.40	0.53	2.6	187.
1.9	300	1885	5.64	-1.83	-5.57	-2.65	2.2	177.
2.3	415	2000	4.64	-0.90	-5.57	-2.65	2.9	189.
2.7	500	2085	4.64	-0.03	-5.61	-2.68	2.8	192.
4.0	915	2500	-0.13	-4.76	-2.45	0.48	1.8	190.
6.7	1415	3000	-4.09	-3.87	0.57	2.35	4.8	236.
7.5	*1530	3115	-4.19		4.01	6.93		
8.5	*1682	3267	-1.18		1.52	4.45		
13.2	2415	4000	-5.65	-1.65	-2.30	0.62		
19.5	3415	5600	-10.87	-5.22	0.59	3.51		
25.1	4415	6000	-17.85	-6.98	0.0	2.93		

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4283

DATE 03/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585	-1.5	1.5	2.1	135.
0.5	76	1661	0.6	1.7	1.8	201.
1.0	202	1787	-0.1	3.2	3.2	178.
1.5	289	1874	-0.2	2.1	2.1	175.
2.0	432	2017	0.5	3.0	3.0	190.
2.5	565	2150	0.6	2.5	2.5	193.
3.0	707	2292	0.3	1.3	1.3	192.
3.5	829	2414	0.1	2.0	2.0	182.
4.0	925	2510	0.3	1.7	1.8	190.
4.5	1001	2586	0.9	2.0	2.1	204.
5.0	1087	2672	1.0	2.2	2.2	208.
5.5	1215	2800	1.7	2.7	3.5	213.
6.0	1302	2887	3.0	3.3	4.5	222.
6.5	1378	2963	3.9	2.6	4.7	235.
7.0	1454	3030	4.2	2.6	4.9	238.
7.5	1530	3115	4.7	3.1	5.6	237.
8.0	1607	3192	4.9	5.2	7.1	223.
8.5	1683	3268	5.9	6.4	8.7	223.
9.0	1759	3344	7.4	7.5	10.6	225.
9.5	1835	3420	7.6	7.6	10.7	225.
10.0	1911	3496	8.0	7.8	10.6	229.
10.5	1988	3573	7.4	5.5	9.4	232.
11.0	2064	3640	7.1	4.5	8.5	238.
11.5	2140	3725	7.0	3.6	7.9	243.
12.0	2216	3801	6.9	3.5	7.7	243.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4277

DATE 03/28/77 TIME 06:07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.8	SFC	150	-2.05		0.0		12.9	270.
1.6	300	1735	-4.66	-2.61	-3.45	-0.52		
		1885	-5.06	-0.40	0.19	3.12		

UTAH UAUR

ELEV 1585 METERS

SOUNDING ID 4277

DATE 03/28/77 TIME 06:07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	12.9	0.0	12.9	270.

UTAH UAUB

ELEV 1585 METERS

SUUNNING ID 4275

DATE 03/28/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		2.55		0.0		7.2	225.
0.9	150	1735	0.07	-2.49	-1.51	1.42	6.8	249.
1.8	500	1885	-0.21	-0.28	-1.89	1.03	6.7	240.
2.6	415.	2000.	-1.96	-1.52	-4.95	-2.02	6.8	238.
3.0	500	2085	-2.82	-1.29	-6.50	-3.57	6.8	245.
4.4	915.	2500.	-6.72	-3.88	-5.78	-2.86	8.5	262.
6.0	1415.	3000.	-11.36	-4.65	-6.25	-3.32	15.0	266.
9.2	2415.	4000.	-23.92	-11.52	-8.81	-5.88	18.3	267.
11.7	3415.	5000.	-33.14	-9.43	-5.48	-2.55	14.8	270.
16.1	4415.	6000.	-42.00	-10.36	-8.40	-5.47		

UTAH UAUB

ELEV 1585 METERS

SUUNNING ID 4275

DATE 03/28/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	5.1	5.1	7.2	225.
0.5	76.	1661.	5.5	1.3	5.6	256.
1.0	176.	1761.	6.7	2.9	7.3	241.
1.5	253.	1838.	4.6	3.0	5.5	231.
2.5	529.	1914.	0.5	3.4	7.4	242.
3.0	405.	1990.	5.7	3.7	6.6	231.
3.5	494.	2079.	6.0	3.0	6.7	243.
4.0	640.	2225.	8.4	4.6	9.6	242.
4.5	800.	2385.	9.0	3.1	9.5	251.
5.0	941.	2526.	8.2	0.9	8.2	204.
5.5	1084.	2609.	9.6	-0.0	9.6	270.
6.0	1251.	2836.	13.0	0.1	13.0	270.
6.5	1410.	3001.	15.0	1.0	15.1	266.
7.0	1565.	3150.	13.0	0.7	15.0	261.
7.5	1697.	3262.	11.7	-0.0	11.7	270.
8.0	1802.	3387.	9.5	-1.0	9.5	276.
8.5	1915.	3500.	10.1	-0.8	10.1	275.
9.0	2080.	3665.	11.9	0.5	11.9	268.
9.5	2534.	3019.	18.3	1.0	18.3	260.
10.0	2588.	4173.	18.3	0.0	18.3	264.
10.5	2805.	4390.	10.5	-0.0	10.5	270.
11.0	3004.	4589.	10.1	0.5	10.1	271.
11.5	3185.	4770.	10.0	0.0	10.0	269.
12.0	3357.	4942.	15.5	0.0	15.5	270.
	3517.	5102.	13.5	0.1	13.5	270.

UTAH UAUB FLEV 1585 METERS SOUNDING ID 4273
 DATE 03/30/77 TIME 06:08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0	SFC	1585	-9.48		0.0		3.6	135.
1.0	150	1735	-5.20	4.28	5.78	8.71	5.0	144.
1.0	* 152	1737	-5.16		5.78	8.71		
2.0	300	1885	-5.16		0.04	-1.34	3.8	202.
2.7	415.	2000.	-5.94		-0.49	-1.54	3.5	235.
3.3	500	2085	-6.33		-0.69	-1.73	4.1	251.
6.0	915.	2500.	-9.58		-3.24	-2.52	6.5	277.
9.3	1415.	3000.	-12.95		-3.37	-1.37	6.1	288.
15.8	2415.	4000.	-20.66		-7.72	-2.99		
22.0	3415.	5000.	-29.54		-8.87	-2.42	0.51	
28.5	4415.	6000.	-34.37		-4.84	-0.61	2.32	

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4273
 DATE 03/30/77 TIME 06:08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0	1585	-2.5	2.5	3.6	135.
0.5	76	1661	-2.0	3.0	3.6	146.
1.0	152	1737	-3.0	4.1	5.1	144.
1.5	229	1814	-0.4	3.6	3.6	173.
2.0	305	1890	-1.5	3.5	3.8	204.
2.5	381	1966	-2.3	2.5	3.4	223.
3.0	457	2042	3.5	1.3	3.7	250.
3.5	533	2118	4.2	1.3	4.4	252.
4.0	610	2195	5.7	1.6	5.0	254.
4.5	686	2371	6.3	1.5	6.5	256.
5.0	762	2347	6.0	1.1	6.1	260.
5.5	839	2024	5.7	0.6	5.8	265.
6.0	916	2501	6.4	-0.8	6.5	277.
6.5	992	2677	7.5	1.3	7.6	280.
7.0	1068	2653	7.5	0.4	7.5	273.
7.5	1144	2729	7.8	0.6	7.8	275.
8.0	1220	2805	8.2	-1.1	8.3	278.
8.5	1297	2882	7.7	-1.0	7.7	277.
9.0	1373	2958	6.1	-1.5	6.2	284.
9.5	1449	3034	5.5	-2.3	5.0	292.
10.0	1525	3110	6.2	-2.4	6.7	291.
10.5	1601	3186	5.8	-2.0	4.8	289.
11.0	1678	3263	4.8	-0.9	5.2	273.
11.5	1754	3339	5.1	1.8	5.8	260.
12.0	1830	3415	5.5			252.

UTAH UAUUB

ELFV 1585 METERS

SOUNDING ID 4292

DATE 03/30/77 TIME 12:52HST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.7	SFC		8.02	-2.48	0.0	-2.46	1.5	315.
1.2	150	1735	5.54	-1.73	-5.30	0.69	1.3	306.
1.8	300	1885	3.81	-1.33	-2.24	0.69	2.2	331.
2.4	415	2000	3.50	-0.33	-1.68	1.24	2.4	147.
2.9	500	2085	2.68	-0.80	-5.25	-2.33	2.8	51.
3.5	915	22500	2.05	-3.87	-4.00	-1.07	4.6	58.
4.2	1415	30000	1.55	-3.88	-4.43	-1.50	5.6	130.
7.0	2415	40000	1.27	-7.48	-2.74	0.19		
12.8	3415	50000	1.17	-5.10	1.98	0.91		
19.2	4415	60000	-21.48	-3.83	-4.38	-1.45		

UTAH UAUUB

ELEV 1585 METERS

SOUNDING ID 4292

DATE 03/30/77 TIME 12:52HST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	1.1	-1.1	1.5	315.
0.5	76	1661	1.3	-0.1	0.3	289.
1.0	241	1826	1.3	-2.0	2.4	327.
1.5	366	1951	0.8	-1.7	1.9	336.
2.0	442	2027	-1.0	-2.0	2.7	42.
2.5	521	2106	-2.0	-1.7	2.0	54.
3.0	666	2251	-2.2	-2.2	3.9	55.
3.5	788	2373	-3.3	-2.2	4.0	56.
4.0	877	2462	-3.0	-2.4	3.8	52.
4.5	986	2571	-5.5	-2.0	5.5	71.
5.0	1092	2677	-6.4	-1.1	6.7	80.
5.5	1183	2768	-7.2	-1.0	7.0	81.
6.0	1260	2845	-5.2	1.3	5.5	104.
6.5	1337	2922	-4.0	3.4	5.9	125.
7.0	1413	2998	-4.0	3.6	5.5	130.
7.5	1489	3070	-3.0	4.0	5.5	135.
8.0	1614	3199	-6.0	4.0	7.2	124.
8.5	1751	3336	-6.5	6.0	8.8	133.
9.0	1836	3421	-4.1	6.6	7.7	148.
9.5	1912	3497	-3.9	7.6	8.7	153.
10.0	1988	3573	-3.9	8.0	8.9	154.
10.5	2064	3640	-4.2	8.4	9.4	153.
11.0	2141	3724	-4.4	7.7	8.9	150.
11.5	2217	3802	-5.0	8.7	10.0	150.
12.0	2293	3878	-5.4	9.1	10.6	150.

















































































































